DOCUMENT RESUME

ED 171 442 **EC 011 298**

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TITLE	A Step Toward Fairness in Evaluating Handicapped Indian Children. A Formula for Weighing Culture Items on the WISC-R and WAIS.
SPONS AGENCY	Bureau of Indian Affairs (Dept. of Interior), Aberdeen, S. Dak. Aberdeen Area Office.
PUB DATE	Jan 79
NOTE	12p.; A previous version of this paper appeared in the BIA Educational Research Bulletin, Volume 7, No. 1, January 1979
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*American Indians; *Cultural Factors; Culture Free Tests; Evaluation Methods; Handicap Detection; *Handicapped Students; *Intelligence Tests; Learning Disabilities; Mentally Handicapped; Mental Retardation; Scoring Formulas; Test Bias; Testing Problems; *Test Items; Weighted Scores
IDENTIFIERS	American Indian Education; Education for All Handicapped Children Act; *Wechsler Adult Intelligence Scale; *Wechsler Intelligence Scale for Children (Revised)

ABSTRACT

Professional assessment of mental retardation (MR) and learning disabilities (LD) is crucial to the implementation of P.L. 94-142 because it necessarily precedes the employment of trained teachers and because a plan for remediation depends on accurate assessment. Intelligence is a key element in the identification of MR-LD, but competent, fair assessment of handicapped Indian children and an accurate measure of their intelligence depends on culture free testing. With most intelligence tests in use, such as the Stanford Binet and the Wechsler Adult Intelligence Scale (WAIS), the problem of culture differences compounds the problem of the tests themselves when they are used with Indian students. The formula offered as an attempt at a solution to the problem of fair evaluation of Indian handicapped students uses the student's own score to weigh four WISC-R and WAIS subtests (information, comprehension, vocabulary, picture arrangement) identified by the Guilford concept as being very heavily laden with items reflecting knowledge of the dominant culture. Using the student's own score does less violence to the test and to student assessment than rejecting the test or subtest completely. Instructions for using the formula are included. (SB)

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A Step Toward Fairness in Evaluating Handicapped Indian Children

A Formula for Weighing Culture Items On the WISC-R & WAIS

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January 1979

JUN 1979
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Public Law 94-142 has been enacted and its implementation has caused anxiety in many circles. To say that departments of education were not prepared for the implementation of such a comprehensive plan is probably the understatement of the year. Yet, efforts have been made in the past year to provide a "free appropriate education" to handicapped Indian children.

Crucial to the implementation of P.L. 94-142 is the concept of assessment by professionals. This point of the law is crucial for at least two reasons:

1) Unless the assessment is done first and the IEP is based on the professional assessment, properly trained teachers cannot be found and employed. It is a truism but yet it needs to be affirmed that teachers are employed to meet students' needs, not students identified to employ teachers. Properly done, professional identification will help this to take place.

2) The medical model of diagnosis and prescription stands out most sharply in the law. The prescription or plan of remediation can only be as good as the diagnosis or assessment. Again these concepts are self evident, yet, because of pressure to "get evaluations done"

there is a tendency to give way to that pressure. This must be resisted.

The Law (94-142) defines certain kinds of handicapping conditions. Some of these are clear cut. For example, persons who are blind, crippled or deaf are generally easy to identify. This does not mean that an IEP is easy to develop, but only that the handicapping condition is observable to all who come in contact with those persons. Not so with mentally retarded or learning disabled, yet MR-LD are the conditions that most evaluators are identifying at the present time. According to the report sent to Congress in April, 1978, by the Washington Office of the Bureau of Indian Affairs, these two handicapping conditions account for 42% of all children evaluated and with an IEP.

In both of these conditions the law states that intelligence is one of the key elements to be considered in the identification of these problems. A mentally retarded person is one who has sub-average intelligence, deficits in adaptive behavior, and a history of developmental delay. A learning disabled student is one who has normal or above normal intelligence but who has a severe discrepancy between his/her achievement and intelligence. The question for educators of Indian children then arises, how are Indian children to be assessed fairly, and, more particularly, how is an accurate measure of intelligence to be found?

Three elements need to be considered in any professional evaluation. They are the evaluator, the student and the instrument. First, let us consider the evaluator. The evaluators must be people who are properly trained. They must be people with high ethnical standards who will stand by their work and make every effort to address themselves to the educational needs of the Indian children they are asked to assess. Evaluators must understand that technical terminology is useless to many educators and parents. The name of the law is The Education of Handicapped Children. Terminology and jargon that address themselves to anything that does not bear on the education of the handicapped Indian child must be avoided.

The student or potential student also bears some responsibility for an accurate evaluation. If a student is hostile, rebellious or non-communicative, the evaluation will often be a reflection of these conditions and not be a true reflection of the student's potential or intelligence. When students are incapable of cooperating, parents, teachers and friends should be used to arrive at a reasonable assessment. The best assessment is not one in which one person does something to the other person, the adult tests the child, but rather something two people do together.

The history of intelligence testing in this country is of a relatively short duration. It is only since the Alfa-Beta testing during World War I that such tests have been used with a large number of people. The Stanford-Binet was used with some popularity in the 1920's but because of its format of leaving clients at a failure

level it lost some of its popularity. It is of course still used by many people today.

Wechsler participated in the Alfa-Beta testing for the army and after World War I created the Wechsler Adult Intelligence Scale. This test sampled more than "school knowledge" and was used mainly as a test of adaptability. The specific items of the WAIS were different for the WISC and WISC-R, as were the items of WIPPS, yet the format stayed the same. They are primarily tests of adaptability and only incidentally a test of learning potential in a school setting. This particular test has been used and abused more by over-zealous evaluators, that is, those who attempt to make the scores say more than they were ever created to say, on the one hand, and on the other hand treated with contempt by untrained and in some cases unscrupulous evaluators. All those who use these tests need to come some place between these two extremes.

When we use the Stanford Binet or Wechsler tests with an Indian population the problem of culture differences compounds the problem of the tests themselves. After all, they were normed on a different population than is found on most reservations. With the implementation of P.L. 94-142, along with its definition of retardation and learning disabled children, those who want to be competent in evaluations are caught on the horns of a dilemma. Several solutions have been tried.

There has been talk of developing a culture-free test for Indians. Those who have contemplated this have been faced with the problem of which Indians? A test that would be culture-free for Northern Plains Indian people would not be useful for Southwestern Indian people. A test that was culture-free for reservation Indians would not be useful for urban Indians. If this concept is taken to its extreme, there would have to be a separate test for each reservation. The technical know-how could be developed but there is no assurance that with that kind of fragmentation the evaluations would be of any use except in a very parochial sense.

There has been another solution offered by some. This is a rejection of all testing and use of recommendations and observations only. The subjective nature of this solution is frightening. Many people who have been involved in education know the problem of typing a family and making judgements on a student's ability on the basis of what a brother or sister has or has not done. In most cases, teachers' observations are useful and important but never should be exclusive because, like all other human beings, teachers are <u>fallible</u>.

Still another way of dealing with the problem of being fair to handicapped Indian students in evaluations is what I call the "pick and choose method" of testing or evaluating. We have seen some evaluators pick certain sub-tests and administer them. Upon the basis of an incomplete test battery, it has been decided what the intelligence level of a child is. Besides, the statement of the law "121a533a. 'Tests and other evaluations: Item 2,

have been validated for the specific purpose for which they were used; Item 3, are administered by trained personnel with the instructions provided by their producer."' I know of no competent college or university which teaches its students to use tests in such a fragmented way. When it is decided that Indian students should not be given the full battery, this is a decision based for the most part on a prejudgement and is a subtle form of prejudice. The evaluation must contain much more than a score to be useful. It must allow every student a chance to succeed or fail on all items. The interrelationship of sub tests is crucial to the understanding of the student.

Guilford has developed a concept of process and product kinds of items in testing instruments. Product items are those items which reflect knowledge of the dominant culture. The more advanced the test, the more product items are found. Therefore, the less one knows of the dominant culture, the less intelligent he/she appears.

With this concept in mind, we have examined the WISC-R and WAIS tests. It appears to this author that the following sub tests of the WISC-R are the most heavily laden with product items or those items that reflect the dominant culture. They are: information, comprehension, vocabulary and picture arrangement. The following formula was developed to try and compensate for these product items by giving a weight to these sub tests.

A = Standard Scores, Information, Comprehension, Vocabulary and Picture Arrangement.

B = Standard Scored: Similarities, Diget Span, Arithmetic, Picture Completion, Block Design, Object Assembly, Codeing

$$\left|\left\langle A/4 - \left\langle B/6 \text{ or } 7\right\rangle\right|\right\rangle = \text{weight}$$

$$\left|\left\langle \frac{i + v + c + pa}{4}\right|\right\rangle - \left|\left\langle \frac{s + a + ds + pc + bd + oa + cd}{7}\right|\right\rangle = W$$

In developing this formula the author was concerned that it is only a possible solution and may not prove to be the best solution to this problem of how to fairly evaluate handicapped Indian children who are suspected of being LD and MR. It is only an attempt. In the Aberdeen Area 190 WISC-R tests have been given by various evaluators. The number of WAIS tests which have been given are 349. The following chart is a representation of the mean scores of these sub tests.

The formula has been applied in the following way:

STEP ONE:

Take the manual wisc-R turn to page 118

Line up the symbols as follows:

i - s - a - v - c - ds pc - pa - bd - oa - cd

STEP TWO:

Over each sub test symbol place either an A or B as follows:

A B B A A B B A B B B

i s a v c ds pc pa bd oa cd

STEP THREE:

Under each sub test symbol place the score from your score sheet as follows:

VERBAL						PERFORMANCE				
A	B	B	A	A	B	B	A	B	B	B
i	*s*	*a*	*v*	c	ds	pc	pa	bd	oa	cd
5.6	7.1	5.7	1.5	6.2	8.1	7.4	1.9	7.3	8.2	7.1

You now have the basic information to proceed with the formula.

The reason why the standard scores are with a decimal point is because these are average scores of a group. You would not have a decimal point on one student.

STEP FOUR:

Go back to the beginning and copy the symbols for sum of A/4 and B/7 or 6 which ever you decide to use

$$\left|\frac{i + v + c + pa}{4}\right| - \left|\frac{s + a + ds + pc + bd + oa + cd}{7}\right|$$

STEP FIVE:

Fill in number from step three, add the total and divide by 4 for A 6 or 7 for B as follows.

$$A = \frac{5.6 + 1.5 + 6.2 + 1.9 = 15.3 = 15.3}{4} = 3.8$$

$$B = \frac{7.1 + 5.7 + 8.1 + 7.4 + 7.3 + 8.2 + 7.1 = 50.9}{7} = 7.3$$

A - B = Weight
3.8 - 7.3 = 3.4

STEP SIX:

Take the information from step three under "verbal" and add weight as follows:

(3w + *i* + v + c) + s + a = WVIQ
(10.2 + 5.6 + 1.5 + 6.2) + 7.1 + 5.7 = WVIQ
(23.5) + 7.1 + 5.7 = 36.3
36.3 = WVIQ

You do not add ds because it is a substitute test

STEP SEVEN

Take information from step three under Performance and add weight as follows:

(1w + pa) + pc + bd + oa + cd = WPIQ
(3.4 + 1.9) + 7.4 + 7.3 + 8.2 + 7.1 =
(5.3) + 7.4 + 7.3 + 8.2 + 7.1 = 35.3
35.3 = WPIQ

STEP EIGHT

Add WVIQ + WPIQ = W full IQ
Convert the numbers into whole numbers. Since the number following the decimal point is under five convert to the lower whole number, if it is over five convert to higher whole number.
WVIQ + WPIQ = W full IQ
36 + 35 = 71

STEP NINE

Convert numbers from manual into IQ number.
See conversion table on pages 151 - 152.

STEP TEN

For contrast compute IQ without weight as indicated in manual as follows: (Be careful to add only five sub test scores).

VERBAL 5.6 + 7.1 + 5.7 + 1.5 + 6.2 = 26.1 = VIQ

PERFORMANCE 7.4 + 1.9 + 7.3 + 8.2 + 7.1 = 31.9 = PIQ

VIQ + PIQ = Full IQ
26 + 32 = 58

Converted by manual with weight

WVIQ = 36 = 82

WPIQ = 35 = 80

W FULL IQ = 71 = 80

Converted by manual without weight

VIQ = 26 = 70

PIQ = 32 = 75

FULL IQ = 58 = 71

The above statistical data is not intended to be used as a level of intelligence. It is after all an average and the average child does not exist. The formula is worked out to illustrate how it might work.

It should be noted that the verbal IQ is raised 12 points by use of the formula. The performance IQ is raised 5 points by use of the formula. The full IQ is raised 9 points. This could have a significant difference in the evaluation of a handicapped Indian child.

Every Indian child has the right to try every item on a test that is going to be used to make a plan that will affect his/her life. Number scores are not infallible but they do have some bearing on the development of an IEP especially for the handicapping conditions of MR and LD. When we use the students' own scores to weigh those sub tests that are heavily culture laden, we do less violence to the test and to the student than if we completely reject sub tests and/or reject the test completely. This has been an attempt to deal with a vital problem. Reactions are welcomed.

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